Title: PROBE OF UNDER SIDE OF COMPONENT THROUGH OPENING IN A PRINTED CIRCUIT BOARD

Assignee: Intel Corporation

## IN THE CLAIMS

Please amend the claims as follows:

- (Currently Amended) A test device comprising:
   an element having a surface for <u>electrically</u> contacting a first plane; and
   a probe having a free end positioned in a second plane <u>for electrically contacting the</u>
   second plane.
- 2. (Original) The test device of claim 1 wherein the element having the surface to contact the first plane includes features for contacting a ground plane.
- 3. (Original) The test device of claim 1 wherein the length of the probe is greater than the length of the element having a surface for contacting the first plane.
- 4. (Original) The test device of claim 1 wherein the element shields the probe.
- 5. (Original) The test device of claim 1 wherein the element surrounds the probe to shield the probe.
- 6. (Original) The test device of claim 1 wherein the element that shields the probe further comprises features for contacting a ground plane dimensioned to prevent interference from radio signals of a selected frequency.
- 7. (Original) The test device of claim 6 wherein the features for contacting a ground plane include a plurality of pointed peaks separated by valleys wherein the height of the peaks are dimensioned to prevent passage of radio signals of a selected frequency.
- 8. (Original) The test device of claim 7 wherein the element includes a cylindrical portion surrounding a portion of the probe.

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## AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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## 9. - 14. (Canceled)

- 15. (Currently Amended) An electrical testing device comprising:
  - a first test probe adapted to contact electrical elements in a first plane; and
  - a second test probe, the second test probe further comprising:

an element having a surface for contacting a first plane; and a probe having a free end positioned in a second plane adapted to contact an electrical element in the second plane.

- The electrical testing device of claim 15 further comprising a fixture having a 16. (Original) nest adapted to receive an electrical device having elements to be tested on a first plane and on a second plane.
- The electrical testing device of claim 16 wherein the electrical device is a 17. (Original) circuit board.
- A method for testing a device under test comprising: 18. (Original) contacting a first pad on the device under test located in a first plane; and contacting a second pad on the device under test in a second plane substantially simultaneously as contacting the first pad.
- The method of claim 18 wherein the first pad and the second pad are contacted 19. (Original) from the same side of the device under test.
- The method of claim 18 wherein contacting the second pad of the device under 20. (Original) test further comprises passing a probe through a portion of a device under test.

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21. (Original) The method of claim 20 wherein the device under test is a circuit board having an electrical component attached to a primary side of the circuit board and wherein passing a probe through a portion of the device under test includes passing a probe through an opening in the circuit board.

22. (Previously Presented) The electrical testing device of claim 15 further comprising a fixture having a nest adapted to receive an electrical device that includes:

a printed circuit board further including:

a primary side; and

a secondary side;

a component having a main body, the component attached to the primary side of the printed circuit board and further including a pad attached to the main body of the component, the pad positioned between the main body of the component and the primary side of the printed circuit board;

a ground plane connection surface attached to the secondary side of the printed circuit board, the printed circuit board having an opening therein positioned near the pad attached to the main body of the component.

- 23. (Previously Presented) A method for testing a device under test comprising:

  contacting a plurality of pads located in a first plane on the device under test; and

  contacting at least one other pad in a second plane on the device under test substantially

  simultaneously as contacting the plurality of pads located in the second plane.
- 24. (Previously Presented) The method of claim 23 wherein the plurality of pads and the at least one other pad are contacted with contacts positioned near one side of the device under test.
- 25. (Previously Presented) The method of claim 23 wherein contacting the at least one pad of the device under test further comprises passing a probe through an opening in the device under test.

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26. (Previously Presented) The method of claim 25 further comprising connecting the probe to a ground plane.

27. (Previously Presented) The method of claim 25 further comprising connecting the probe to a ground plane, the ground plane located substantially coplanar with the first plane.